

BID SOLICITATION

Page 1 of 3
Printed: 3/30/2006



STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS
CAPITOL HILL
PROVIDENCE RI 02908

BUYER: LISA HILL
PHONE #: (401) 222 - 2142 ext. 116

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TRANSPORTATION
DOT MAINTENANCE BUSINESS OFFICE
360 LINCOLN AVE
WARWICK RI 02888

BID NUMBER: B06192
TITLE: 6-WHEEL HEAVY DUTY DUMP TRUCKS
BID OPENING DATE AND TIME:
04/13/2006 10:30 AM

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TRANSPORTATION
DOT MAINTENANCE DIVISION
MAIN OFFICE
360 LINCOLN AVE
WARWICK RI 02888

Requisition Number(s):

Item	Class-Item	Quantity	Unit	Unit Price	Total
	<p>VENDORS MUST SUBMIT ALL SPECIFICATIONS IN TRIPLICATE. FAILURE TO DO SO MAY RESULT IN DISQUALIFICATION.</p> <p>ON AN ATTACHED SHEET, VENDOR MUST IDENTIFY ANY AND ALL EXCEPTIONS, HOWEVER MINOR, AND MUST SUBMIT WITH BID PROPOSAL.</p>				

It is the Vendor's responsibility to check and download any and all addenda from the RIVIP. This offer may not be considered unless a signed RIVIP generated Bidder Certification Cover Form is attached and the Unit Price column is completed. The signed Certification Cover Form must be attached to the front of the offer. When delivering offers in person to One Capitol Hill, vendors are advised to allow at least one hour additional time for clearance through security checkpoints.

DELIVERY: _____

RIVIP VENDOR ID#: _____

TERMS OF PAYMENT: _____

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	<p>THE FOLLOWING ADDITIONAL TERMS AND CONDITIONS APPLY TO THIS INVITATION FOR BIDS:</p> <ol style="list-style-type: none">1. ALL VEHICLES MUST BE DELIVERED WITHOUT DEALER'S NAME OR ADVERTISING OF ANY TYPE VISIBLE ON THE BODY.2. EACH VEHICLE DELIVERED TO THE STATE MUST BE ACCOMPANIED BY A "CERTIFICATE OF ORIGIN" CONTAINING THE MANUFACTURER'S VEHICLE IDENTIFICATION NUMBER (VIN), THE NUMBER OF ENGINE CYLINDERS AND ENGINE TYPE, A GENERAL DESCRIPTION OF THE BODY, AND THE MODEL NAME OR NUMBER. CERTIFICATE OF ORIGIN MUST BE ASSIGNED TO STATE OF RI/FLEET OPERATIONS, ONE CAPITOL HILL, PROVIDENCE, RI 02908, UNLESS THE VEHICLE IS BEING PURCHASED BY THE RHODE ISLAND STATE POLICE. IF SO, CERTIFICATE OF ORIGIN MUST BE ASSIGNED TO RHODE ISLAND STATE POLICE, 311 DANIELSON PIKE, NORTH SCITUATE, RI 02857.3. BIDS MUST BE PREDICATED ON THE BASIS OF THE BIDDER'S FULL AND UNENCUMBERED TITLE TO THE VEHICLE(S) AS OF THE DATE OF DELIVERY TO THE STATE. BIDS SUBJECT TO LIEN OR ASSIGNMENT AT THE TIME OF DELIVERY TO THE STATE, OR WHICH STIPULATE THIRD PARTY OR JOINT PAYMENT, WILL BE REJECTED.4. TITLE CERTIFICATES MUST BE PROVIDED AT THE TIME OF DELIVERY TO THE STATE.5. WHERE THE FIRM SUBMITTING THE BID IS ACTING AS AN AGENT FOR ANOTHER CORPORATE ENTITY, (SPECIFICALLY WITH RESPECT TO LEASE ARRANGEMENTS), THE BID MUST IDENTIFY THE CORPORATION WHO WILL BE NAMED IN ANY SUBSEQUENT AWARD AS THE BIDDER OF RECORD.6. UNLESS OTHERWISE INDICATED, ALL VEHICLES WILL BE DELIVERED TO STATE FLEET OPERATIONS AT ONE CAPITOL HILL, PROVIDENCE, R.I.				

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1.0	<p>THE STATE OF RHODE ISLAND RESERVES THE RIGHT TO MANDATE THE REPLACEMENT OF ALL VEHICLES IN ACCORDANCE WITH RHODE ISLAND STATE LEMON LAW 31-5.2-1 TO 31-5.2-13. REPLACEMENT EQUIPMENT MUST BE OF LIKE OR SUPERIOR SPECIFICATIONS TO THE VEHICLE IN QUESTION. COSTS ASSOCIATED WITH THE REMOVAL OF PROBLEMATIC EQUIPMENT AND DELIVERY AND INSTALLATION OF REPLACEMENT EQUIPMENT WILL BE SOLELY AT THE VENDOR'S EXPENSE.</p> <p>070-06 6-WHEEL DUMP TRUCK, PER ATTACHED SPECIFICATIONS.</p> <p>YEAR _____ MAKE _____ MODEL _____ PLOW _____ DUMP BODY _____ PRE-WETTING SYSTEM _____ PROPOSED DELIVERY _____</p> <p>CONTACT PERSON: PAUL BERTHIUAME (401) 222-2378</p>	10.00	EA		
				TOTAL:	

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STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS

**Department of Transportation
HIGHWAY & BRIDGE MAINTENANCE
360 Lincoln Avenue
Warwick, R.I. 02888-3030
Phone: 401-222-2378; Fax 401-736-8639**

**State of Rhode Island Bid #B06192
6 Wheel Dump Truck Specifications**

Bidder Name:

Submitted By:

Below are the specifications established by the State of Rhode Island for the 6 Wheel Dump Trucks requested in this bid. Please use these specifications as the basis for your offer.

The successful bidder must be an Authorized Manufacturer or Authorized Manufacturer Representative located within a one hundred (100) mile radius of Department of Transportation "DOT" Highway & Bridge Maintenance Facility, 360 Lincoln Avenue, Warwick, RI 02888.

The Authorized Manufacturer or Authorized Manufacturer Representative will be responsible for the maintenance of the entire vehicle and all optional equipment.

No alternatives to the specifications will be accepted. All bids must meet or exceed specifications. Only one (1) set of specifications will be accepted per bidder. Specifications must be submitted in triplicate (3 complete sets).

Delivery must be completed within one hundred eighty (180) days of the successful bid. DOT will accept early delivery and will pay for each unit upon receipt. The state agrees to pay the vendor the manufacturer invoice amount upon delivery of the cab and chassis only to the respective truck equipment supplier. The remaining payment will be made upon delivery of the cab and chassis fully equipped to the Division of Maintenance, 360 Lincoln Avenue, Warwick, Rhode Island.

Errors or omissions of the specification: In the event of errors or omissions of the specification it is nonetheless the responsibility of the bidder to provide an operational system that meets the intent and technical requirements of the specification to the satisfaction of the Rhode Island Department of Transportation.

Responsibility of Bidder: In the past, in some instances, it has not been possible to mount a PTO/Pump combination on the Allison Automatic Transmission. It is the responsibility of the bidder to verify that the Hot Shift PTO and Load Sense Hydraulic Pump can be mounted on the specified Allison Automatic Transmission of the truck chassis submitted for the bid.

6 Wheel Dump Trucks Quantity: 10

Option: The State reserves the right to purchase an additional twelve (12) 6-Wheelers, at the same price, pending funding availability.

Purpose: The purpose of these specifications is to procure new six-wheel trucks with multi-use heavy-duty bodies complete with plows. The DOT Maintenance does not seek a hybrid or custom-built truck but rather a manufacturer's standard unit painted White.

Written documentation on all warranties: Diagnostic tools and software. Computer and computer work shop on wheels with cooling fan. Lap top computer tuff pad Panasonic #CF-73 for road test.

Inspection: State will provide periodic inspections while mounting attachments to cab and chassis.

CHASSIS

A. DIMENSIONS

- GVE rating – 48,000 lbs
- Wheelbase – 163 inches
- Cab-to-Axle – 84 inches must be verified with the body installer

B. FRAMES

- Frame Section Module: 22.12
- RBM-2,654,400
- PSI-120,000
- Extend a minimum of 18 inches beyond the radiator grille to accommodate snowplow push frames
- Bolted or welded front frame extensions are not acceptable

C. ENGINE-DIESEL

- 300 HP & 1200 ft. lbs of torque, minimum 12-liter displacement
- The engine shall be equipped with the following: Air intake inside/outside with in-cab control
- Engine block heater- 1,500 watt, 120 volt
- Engine hoses and tubing, silicone
- Exhaust under frame horizontal mounted muffler with vertical tail pipe and exhaust stack shield for body clearance and/ or wing plow clearance
- 12 V Davco #382 bolt on type heated water fuel

- Engine protection-monitoring system, Kysor engine shutdown and alarm system with automatic override, lights, and buzzer monitoring high coolant temperature, low acid pressure and low coolant level in radiator. Engine electronically set to limit road speed to 5 mph when dump body is not in the rest position
- Engine compression brake, Jacobs or equivalent

D. TRANSMISSION

- Allison 4500RDS Automatic 5-speed, Transynd lube required

E. AXLES

- Front axle – 18,000 lbs. capacity
- Rear axle – 30,000 lbs. Capacity

F. SPRINGS

- Front-spring – 18,000 lbs. Rated
- Rear springs – 30,000 lbs. Multileaf, springs helper

G. BRAKES

- Front-Brakes-Rockwell “S” Cam type
- Front drums cast inboard
- Furnish front brake dust shields
- Self-adjusting brakes-Eaton/Haldex automatic slack adjusters or equivalent
- All Clevis pins shall be stainless steel and the “S” cam splines shall be coated with NEVER SEIZE and be the 10-spline type if available
- Rear Brakes-Rockwell “S” Cam type
- Rear drums cast inboard
- Furnish rear brake dust shield
- Self-adjusting brakes-Eaton/Haldex automatic slack adjusters or equivalent
- All Clevis pins shall be stainless steel and the “S” cam splines shall be coated with NEVER SEIZE and be the 10-spline type if available
- Anti-lock brake system with traction control

H. TIRES

- Front- (2) 425/65R22.5 unisteel G286 470 rev/mile, load range L20 ply
- Rear- 12R24.5 16 ply G177 meet or exceed.

I. WHEELS

- Front- 22.5” 10 hole hub piloted steel disc wheel 12.25 rims
- Rear-cast spoke 24.5 X 8.25

J. ELECTRICAL SYSTEM

- Twelve-volt negative ground electrical system consisting of the following components:
 - Alternator shall be 145-amp capacity
 - Three maintenance free batteries-31- 660CCA threaded stud types
 - Trailer connections- full to rear of chassis includes: one seven wire cable with seven-wire plug routed to rear of chassis and wire to DOT Specifications. A protective boot (11-761) shall also be provided
- Belts sealed wiring with weather tight junction boxes. PVC pipe routed inside chassis frame rails for body wiring. All wiring shall be soldered and sealed (no Scotch lock connectors)
- A wiring schematic shall be supplied illustrating the wiring system

K. FUEL SYSTEM

- 100 Gallon total capacity steel step tanks. Fuel tanks not to extend beyond rear of cab. Two tanks one on each side

L. CAB

- Conventional Cab (welded steel galvanized shell) to include rust preventative procedures
- Glass-safety tinted, side, and rear windows
- Grab handles, stainless steel, RH & LH behind door
- Hood and fenders, fiberglass-tillable with inspection hatches and frame mounted fender-splash shield section
- Identification/clearance lights (5)
- Low air pressure indicator lights and buzzer
- Mirror-exterior west coast RH & LH bright finish heated with stainless steel arms and brackets
- Seats: Driver Bostrom (mid-back), air suspension/ Rider-extended non-suspension
- Interior of cab shall be custom quiet to reduce engine noise and vibration
- Floor area between seats shall be kept clear for installation of snowplow and spreader controls
- Ventilation:
 - Cab Cowl-LH one-way type
 - Upper-fresh air inlet for heater.
 - Air-conditioned. Heated wipers
- A road watch temperature-sensing unit shall be provided (model RW-2).
- AM/FM Weather band radio
- A road surface temperature gauge shall be installed (Road Watch Model RW2)
- Heated wiper blades

M. Cab Interior

- Interior of cab shall be custom quiet to reduce engine noise and vibration, padding on head liner, back of cab, and interior door panel
- Floor area between seats shall be kept clear for installation of snowplow and spreader controls

- Arm rest (2) molded plastic, gray or black, one each door
- Floor covering rubber, black
- Interior sheet metal painted, color based on the window ledge color of the exterior
- Console, overhead molded plastic with dual storage pockets and retainer nets and CB pocket with cover, gray with black pockets
- Coat hanger located in cab
- Gauge cluster, English with English electronic speedometer and tachometer
- Gauge package to include hour meter and oil temperature gauge
- Seat driver, air-suspension, intermediate back, isolated, with two-position front cushion adjustable. Mechanical lumbar support and storage. Pocket on seat back. Includes seatbelt three-point, lap and shoulder belt types. Seat, passenger, non-suspension, low back, vinyl, folding back with storage pocket. Includes seatbelt three-point, lap and shoulder type belt
- Windshield wipers (2) electric, header mounted, single motor with intermittent switch. Blades snow-type 13" length
- Air conditioner with integral heater and defroster, includes refrigerant hydrofluorocarbon HFC-134A

N. FRONT BUMPER

Standard construction type bumper shall be furnished loose with each vehicle. These vehicles will have extended plow frames therefore the snowplow installer will be required to modify and attach the front bumper with any cut-offs necessary for tow hooks after the push frames have been installed.

O. PAINT

Shall be White over proper primer for cab and sheet metal. No other color will be accepted by DOT, Chassis and running gear shall be black. Front and rear spokes shall be black. Wheels shall be gray. Undercoating Materials- The truck shall be undercoated with a material which when applied at manufacturer's recommended dry film thickness, shall meet ASTM B-117 salt spray test for a minimum of 2000 hours (Isolclad and Corashield/Coratub materials are acceptable.) Finished undercoating shall require no maintenance throughout the useful life of the truck.

P. LIGHTS

- Belts LED ICC and rear light modules #A5R010139 will be mounted on dump body according to RIDOT specifications
- All of these lights are to be hooked into a sealed box; any additional wire needed shall be BSZ14BLK polyethylene fourteen- (14) gauge primary wire. This system shall be totally sealed
- On the cab shield as far forward as possible, two (2) Whelan 800DHAP strobe lights shall be mounted eight (8) inches up from cab shield on 2 x2 x 3/16" tubing. Two oval strobe lights Whelan model super LED #LPG49AA shall be embedded in the rear of the bump body. The lighting system shall be Betts and Whelan sealed lighting system
- Two sanding lights shall be provided

Q. ACCESSORIES

- Two wheel chocks per vehicle shall be furnished and mounted for carrying
- Tailgate handles safety chain
- A 25-ton capacity pintle hook for towing on the rear of each vehicle and two hooks or loops on the plow frame to be furnished
- Four (4) tow hooks front/rear for towing of vehicle if needed
- Holders for shovels, brooms, crowbars and safety cones mounted in plow hitch area
- Three (3) sets of keys: All Trucks keyed alike
- Fire extinguisher
- Three (3) safety triangles
- Reflective tape on two (2) sides and rear of dump body per federal and State DOT specifications
- No rain cap on exhaust-use 90-degree exhaust tip
- Airlines for trailer at rear of truck for trailer brakes – glad hand

CUSTOM TRUCK/PLOW ATTACHMENT SPECIFICATIONS

- The custom truck/plow attachment shall be manufactured by a recognized snowplow manufacturer. The hitch is to be designed for trucks with stationary grille to allow for the hood to tilt over the plow frame. Hitch is to be custom built for the chassis that it is to be installed on.
- Hitch is to be constructed of ½" steel throughout. The vertical risers shall be minimum 4"x 3"x½" angle. The cylinder base angle shall be 4"x4"x½" angle boxed in with a ½"x4" bar.
- Minimum ½" cheek plates to extend back beyond the front axle attaching to the truck frame and front hitch assembly via ½" angles and grade 5 bolts. The hitch is to be designed to withstand extreme torque under severe applications.
- The plow lift cylinder shall be double acting with a 4" bore, 10" stroke, chrome plated piston rod, adjustable chevron type packings and a wiper to clean the piston as it retracts into the cylinder. The base of the cylinder shall attach to the aforementioned horizontal member, while the cylinder rod attaches to a horizontal pivoting lift yoke weldment from ½" plate.
- Two pin heights of 12" and 15" on 21" centers and two pin heights of 18" and 21" on 30½" centers.
- Plow lights to be mounted on custom aluminum brackets to the sides of the chassis hood.

TRIP EDGE POWER REVERSIBLE PLOW SPECIFICATIONS

- **Moldboard:** Shall be 11" long, 42" high inside and shall extend at least 12" out over the cutting edge. The moldboard shall be formed from one piece of ⅜" thick UHMV polymer sheet. The upper portion of the polymer sheet shall be

bolted to and sandwiched between 3"x3"x1/4" and 3 1/2"x3 1/2"x1/4" angles so as to form a rigid structure at the top. The bottom of the moldboard shall be reinforced by not less than a 5"x5"x1/2" angle. It shall be provided with eight one piece 1/2" plate vertical ribs, and shall be equipped with two 10-degree moldboard shoes.

- The moldboard shall be equipped with a 1/2"x18" rubber flap bolted across the top of the moldboard to prevent snow from blowing over.
- **Carbide Cutting Edge:** It shall be not less than 8"x1/2"x132", and shall be bolted to the plow for easy replacement with 5/8" x VA Grade 5 carriage bolts and locknuts on 12" center. Shall be equipped with a carbon steel backer blade.
- **Cutting Edge Reinforcement:** Shall not be less than 4"x4"x3/4" steel angle with 1/2" steel plate gussets electrically welded to the framework.
- **Shoes:** Replaceable wear parts shall include two (2) abrasion resistant moldboard shoes (minimum Brinell of 360) and two (2) cast chilled malleable iron curb shoes.
- **Trip Mechanism:** The trip mechanism shall be of the signal section trip edge type. It shall consist of (5) 7/8" alloy wire torsion springs with sixteen coils 17 3/8" long. It shall have two hinge rods made from 1 1/2" HR steel which slide through the springs and hinge lugs to support the trip edge mechanism. Each spring shall have provision from pre-load adjustment.
- **Reversing Frame:** The reversing frame shall be fabricated from 4"x4"x3/8" square tubing and 4"x3"x1/4" rectangular structural tubing gusseted at key stress points. Three (3) sets of 1/2" thick reinforced connecting lugs spanning 80" shall be welded to the 4"x4"x3/8" member of the reversing circle. These lugs will serve as connection points to the moldboard.
- **"A" Frame:** Shall include a weldment consisting of two (2) pieces of 4"x3"x3/8" rectangular tubing spaced so to accommodate a sliding member from 7"x4"x3/8" rectangular tubing. This weldment shall have top and bottom members from 3/8" thick plate, and a rear plate not less than 1" thick x 10" wide. The rear plate shall be fitted with an oscillating bar from 3/8" plate, which incorporates 1 1/4" drive ears on 30- 1/2" centers.
- The oscillating bar shall revolve about a 1 1/2" Grade 5 bolt so to allow the plow to follow road contour. This sliding member, as noted above, shall include a 1 15/16" diameter C.R.S. pivot pin for attachment to the Reversing Frame. It shall seat inside the "A" Frame weldment where it shall be secured in position by a 9/16" diameter wire extension spring.
- This spring retained sliding member shall provide moldboard locking/unlocking action when the reversing cylinders are activated.

- **Reversing & Locking Mechanism:** The hydraulic reversible push frame shall offer nine (9) plowing positions: four (4) on either side of center to a maximum of 37 degrees for discharge to the right or left. Reversing actuation shall be via two (2) 3" diameter x 18" stroke single acting cylinders.
- Cylinder protection shall be provided by the aforementioned spring retained sliding mechanism, which pulls a 1" Nicroloy locking pin located at the rear underside of the "A" Frame into a 3/4" thick indexed locking plate at the Reversing Frame.
- Locking force is provided by a combination of spring tension and forward plow movement, while unlocking force is provided by the reversing cylinders.
- **Hardware Plating:** All nuts, bolts and chain shall be zinc plated.
- **Paint:** All snowplow components shall be shot blasted and painted with one (1) coat of primer and one (1) coat of finish paint.
- **Cylinder Rods:** All snow plow hydraulic cylinder rods shall be induction hardened and chrome plated to a minimum of .04" (1mm) thickness.
- **Wrap-A-Round Bumper:** An additional bumper shall be supplied at each end of the moldboard (quantity 2). They shall be from a minimum of 5/8" thick steel, shall bolt at the cutting edge face and shall project outward beyond the cutting edge where they shall terminate with a 2 1/8" diameter round bar.

GROUND SPEED ORIENTED CENTRAL HYDRAULIC SYSTEM

- Power take off will be transmission mounted and will be hot shift design with no less than 100% of engine speed, the PTO will accept a variable displacement pump via direct mount. Controls for engage/disengage of the PTO shall be a CS105. The CS105 controller shall monitor hydraulic reservoir oil level via the reservoir oil level float switch, once the oil level drops below a safe operating level this switch will disengage the PTO. The controller shall be compatible CS440 design.
- The direct PTO mounted hydraulic pump will be a piston type, variable displacement, pressure compensating design, the pump will be a REXROTH A10V060 52 series.
- Hydraulic valves shall be REXROTH load sense MP18 series to control all hydraulic functions, the valve shall be installed in a frame mounted REXROTH TANK/ENCLOSURE CS-VTM-151-SFM equipped with a 2" ball valve shut-off.
- Controls for all valves shall be DEL pneumatic equipped with an adjustable filter/lubricator/regulator assembly plumbed in line with all controls mounted in the cab.

- The spreader control must be a Compu-Spread CS-440, this unit will control the pre-set application rate of all materials including the calcium system.
- The location and mounting of all controls shall be pre-approved by RIDOT.

HEAVY DUTY SINGLE OR MULTI-AXLE MUNICIPAL DUMP BODY AND HOIST PACKAGE

- **General:** The specifications describe a multi-purpose unit with radiuses sides which can be used as both a dump body and a salt/sand spreader. As a salt/sand spreader a recessed longitudinally centered main conveyor carries materials to a spinner centered behind the rear dual tires. As a conventional dump body the telescopic hoist lifts the front of the body. The body is of a heavy duty design and has a COR-TEN shell which comes in contact with payload. Body seams are 100% welded inside and out. The body ends are higher than the sides with pockets for 10" extension sideboards. The tailgate is reinforced and has offset upper hinges, two coats of primer and two coats of white to match cab.
 - Body length 10 feet
 - Body width 86 inches
 - Body capacity 6.0 to 8.1 Cu. Yards
 - Side height 45" Even number
 - End height 53" Even number
- Body to be constructed from one piece head sheet and side panels fabricated from a minimum 3/16" COR-TEN. Body front panel shall be completely clean and clear of any type of recess and/or protrusions into the body including hoist bulkheads-dog houses, etc. Top horizontal rails shall be minimum 4"x4"x $\frac{3}{8}$ " COT-TEN tubing. The rear vertical corner posts to be COR-TEN fabricated in such a way as to allow for the inclusion of rear facing optional lighting requirements.
- Rear vertical corner posts to be tired to radius side panels and horizontal top rails and welded 100%. Rear vertical corner posts to be connected to the main conveyor via a rear horizontal 8"x3"x $\frac{3}{8}$ " stainless steel structural tube spanning the full body width.
- Body construction shall include integral side fenders fabricated from 10 gauge COR-TEN material. Integral fenders to be sloped away from the unit to prevent any excess materials spilled during loading from building up on fenders. Body access via 15" wide two piece fold up ladder located a the rear curb side of the unit.
- The radius sides and front panel shall be lined with a $\frac{1}{4}$ " thick AR235 replaceable steel wear plate.

- The main conveyer to be three piece formed construction centered and recessed along the full length of the dump box floor.
- Construction shall be ¼" COR-TEN material for both the main conveyor frame and body long sills. Conveyor sides to be fabricated in such a manner to include integral chain link covers. Conveyor sides to include vertical slots at both drive and idler shaft mounting locations to allow shaft assemblies to simply drop out providing easy access and simplifying maintenance.
- Replaceable conveyor wear plate fabricated from ½" UHMV polymer. A full length polymer spill guard attach to the conveyor underside to prevent any material carried back on the underside of the main conveyor from falling on chassis components.
- A high torque low speed hydraulic motor through a 25:1 planetary gearbox shall drive the main conveyor with sufficient torque to discharge sand and salt through a tailgate mounted feed gate to the spinner. Conveyor chain to be self-cleaning D667 pintle type with a minimum tensile strength of 30,000 PSI spaced apart 21" on center. Bar flights will be 3/8" x 1 ¼" spaced every 2nd link. All conveyor flights shall be 100% fully welded.
- Drive and idler shafts to be 2" high resistance stress proofed SAMSON 100. Drive and idler sprockets to be minimum eight tooth cast steel, all sprockets to be minimum C1030 cast steel. Drive and idler shafts to be mounted into unit via four bolt self aligning flange bearings. Conveyor chain tension to be regulated via a chain tensioning adjuster.
- **Spinner:** The rear spinner is of polyurethane construction and is centrally located beneath and at the rear of the dump body floor along with a corresponding spinner chute assembly. The rear spinner arrangement is such that it incorporates an internal deflector and horizontal adjustment to provide variability of spread pattern via alteration of material flow to the spinner housing. Hydraulic quick couplers shall be included to allow for removal of the spinner assembly.
- The spinner disc will be 22" in diameter with 6 vanes and is direct coupled to the motor beneath it.
- Tailgate to be double acting rectangular construction design. Tailgate sheet shall be 3/16" COR-TEN. Tailgate sheet to be reinforced with formed horizontal stiffeners fabricated from COR-TEN.
- **Tailgate Latch:** The latch device is air operated locking at the rear. Air actuation is through two air pot boosters, one at each latch position to provide positive uniform pressure at the sides of the tailgate. The lower hook is 5/8" plate-flame cut. The hook is straddled by two ½" plates providing a double seat for each lower tailgate pin.

- **Hoist:** Front mount top left telescopic, 3 stage 20-ton capacity, sleeves are nitride, NTEA class 40. Rear dump hinge assembly to be fabricated from ½" 44 W plate steel formed to 5"x8" angle with 1¼" flame cut vertical pivot plates. The rear hinge blocks to be 3" 44W flame cut profile to accept 2 ½" diameter C1018 pivot pins. The body to be equipped with a positive locking support integral with rear body hinge.
- **Cab Protector:** ¾" cab shield COR-TEN construction.
- **Top Screens:** Four section elevated to reduce material buildup.
- **Flaps:** Installed front and rear of the rear axle.
- **Reflective Tape:** Installed on body sides and tailgate.
- **Pre-Wetting System:** (2) 75 gallon chassis mounted tanks positioned to allow the body fenders to cover and protect the tanks when the body is in the down position the tanks shall be mounted on COR-TEN trays or fender mounted.
- **Pump:** Hydraulic with COR-TEN enclosure to protect the pump-wiring and circuitry.
- **Spray Bar:** Bar and nozzle made of brass.
- System shall be regulated by the CS440 controller located in the hydraulic specifications. A pressure switch must be located on the conveyor hydraulic system that will shut off the liquid pump when the conveyor comes to a stop.

COVER SYSTEM SPECIFICATIONS MODEL: DT-2000 CH (CENTRAL HYDRAULICS 10-20 FT. BODIES) OR DOT APPROVED EQUAL

- ½" steel power mounts with Teflon sealed spherical bearings
- Grade 8 bolts and nuts
- The in-cab power cover control lever is in line with other control levers
- A spool sectional valve is stacked with the existing sectional valves
- A built-in check valve in the sectional valve safety locks the system in both directions
- .25/3000 PSI hydraulic hose with a #4 JIC fitting
- Hydraulic cylinders have a W-bore 16" stroke with a 1" chrome plated piston rod

- Side arm wall tubing: (2"x1½"x11" gauge) with steel welded ends and cylinder mounts.
- 3 ½" galvanized steel tube roll assembly
- 18 oz. Armor Guard Cover (wear resistant and asphalt approved). (UHMW) self-lubricating wedges (high density polypropylene)
- Full 100 warranty on parts and labor for one year (excluding cover)